

Department of **SURGERY**

Honoring the past...



*Creating the Future of Surgery **NOW***



THE OHIO STATE UNIVERSITY
WEXNER MEDICAL CENTER

Department of **SURGERY**

Statistics from FY 2012-2013



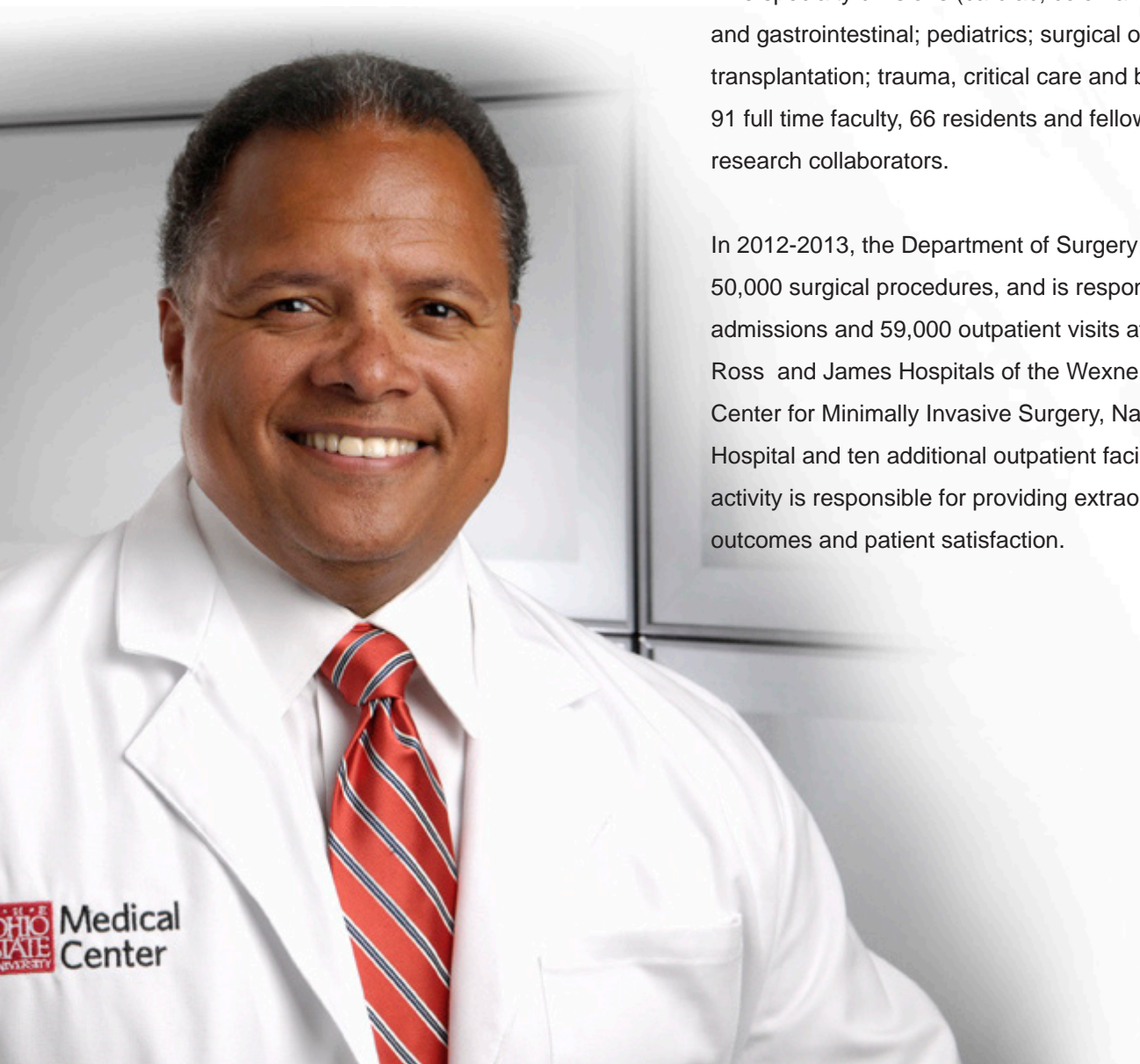
We're creating the future of surgery **NOW**

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The Department of Surgery today and tomorrow

Since its inception nearly 100 years ago, the Department of Surgery at The Ohio State University Wexner Medical Center has grown to be one of the most prestigious and well-respected departments of surgery in the country. Under the direction of Dr. E. Christopher Ellison, former Chairman of the American Board of Surgery, OSU's surgical leadership has helped to establish an outstanding clinical department whose mission is to deliver high quality patient care, innovative research and educational programs. The department is comprised of nine specialty divisions (cardiac; colon and rectal; general and gastrointestinal; pediatrics; surgical oncology; thoracic; transplantation; trauma, critical care and burn; and vascular), 91 full time faculty, 66 residents and fellows and dozens of research collaborators.

In 2012-2013, the Department of Surgery performed over 50,000 surgical procedures, and is responsible for 8,000 admissions and 59,000 outpatient visits at the University, Ross and James Hospitals of the Wexner Medical Center, its Center for Minimally Invasive Surgery, Nationwide Children's Hospital and ten additional outpatient facilities. This clinical activity is responsible for providing extraordinary patient care, outcomes and patient satisfaction.



Of critical importance has been the Department's recent focus and commitment to the academic mission with increased emphasis on research and education. Stimulated by the goal of reaching the top 20 academic and research programs in the country, on-going recruitment and investments in the field of wound healing, vascular and cardiovascular biology, tumor biology, transplantation and multidisciplinary collaborations across the OSU Colleges and Nationwide Children's Hospital promises to create a fertile environment for new investigators and programs. Extramural research funding from the OSU Research Foundation, Nationwide Children's Research Institute, and the NIH, as well as financial support from industry and development funds serve to provide necessary financial resources to grow these pivotal research programs.

Consistent with its academic legacy, the Department continues to value its commitment to educating the next generation of physicians and surgeons through its residency training programs. The Department provides stewardship for the Master in Medical Science Program which prepares residents for careers in research in academic surgery and other innovative programs. In the current academic year close to 20 residents and fellows completed their training in general surgery and specialty fields, leaving OSU to join a variety of community and university-based practice opportunities as well as advanced academic fellowship training positions. The Department of Surgery also serves as the clinical training environment for hundreds of medical students, nurses, and allied health professionals.

It is clear that this historically strong Department of Surgery has distinguished itself as a leader in the field of surgery with a legacy of superior patient care. The future is bright as it strives to sustain its role as a national leader in research and education with the goal of being recognized as one of the best academic surgical departments in the country.

Robert S. D. Higgins, MD, MSHA
Professor and Chairman, Department of Surgery

Excellence

Diversity

Innovation

Collaboration

Trust

Empathy

Integrity

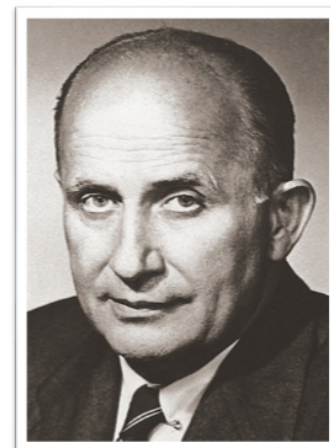
Honoring the Past

The History of the Department of Surgery

By Robert M. Zollinger, Sr., MD

The Ohio State University Wexner Medical Center and College of Medicine evolved from a succession of institutions established during the 19th century.

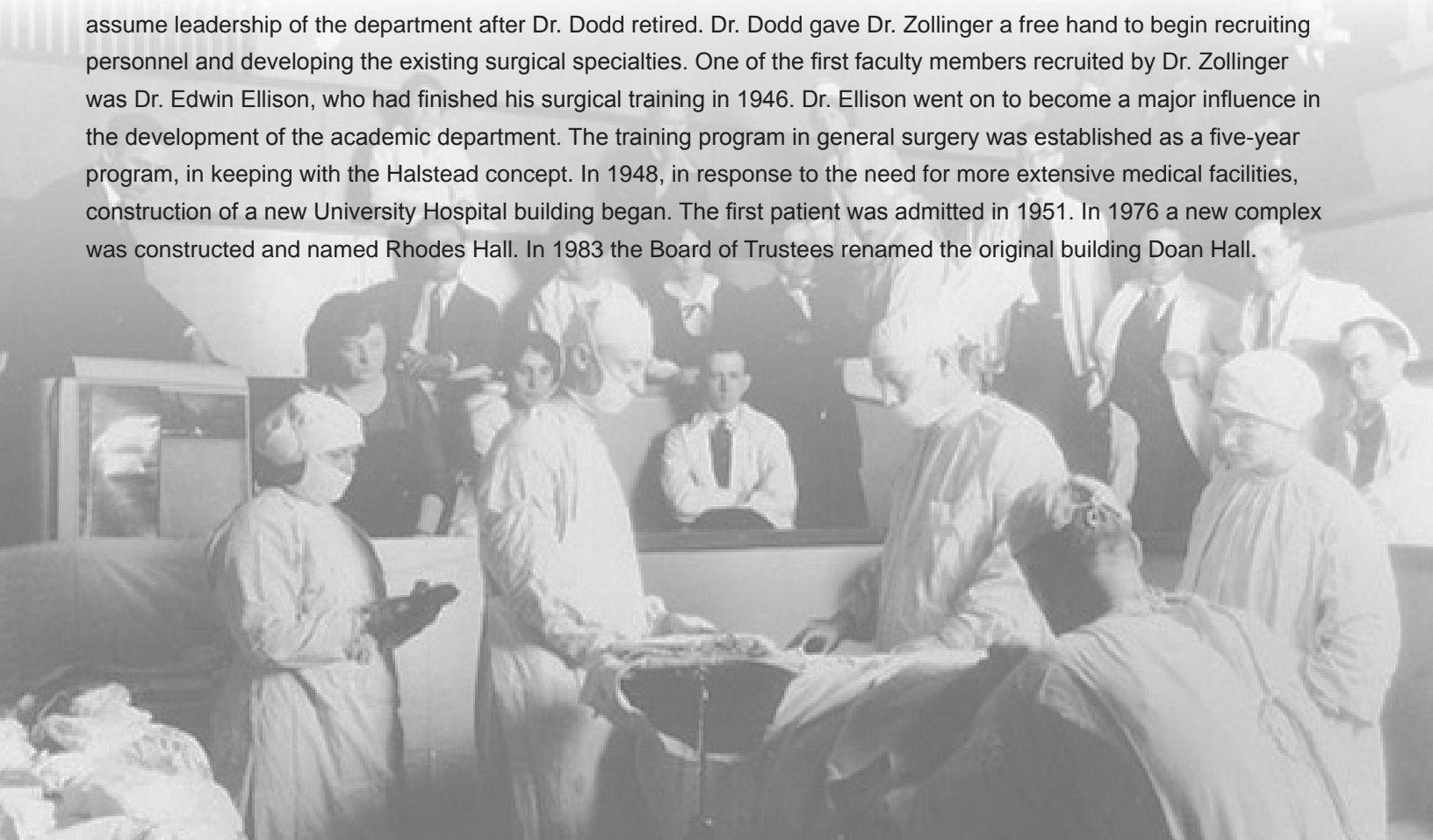
On March 13, 1907, at a meeting of the Ohio Legislature, all properties of the Starling Medical College and the Ohio Medical University were transferred to a new corporation that established the Starling Ohio Medical College. The new corporation included medical, dental, and pharmacy departments. Teaching took place at Protestant Hospital and St. Francis Hospital. On January 10, 1914, the trustees of the Starling Ohio Medical College gave to the state of Ohio all its properties to found the College of Medicine of The Ohio State University, which was established on the south side of the campus.



Dr. Robert M. Zollinger, Sr.

The first chief of the Department of Surgery was Dr. William Means, who served from 1914 to 1916. He was followed by Dr. Verne Dodd, who was acting head from 1917 to 1922, and Dr. Charles Hamilton, who was head from 1922 to 1926. Dr. Dodd became head of the department again in 1927. By 1933 there were two parallel but separate departments of surgery. Clinical surgery was directed by Dr. Dodd, who was noted for bedside teaching and who initiated plans for residency programs in specialties. Research surgery was directed by Dr. George Curtis, who was known for his research in thyroid and chest surgery and iodine metabolism. Dr. Dodd served as head of the department until 1947.

In 1946 Dr. Robert Zollinger was appointed professor of surgery at Ohio State, with the understanding that he would assume leadership of the department after Dr. Dodd retired. Dr. Dodd gave Dr. Zollinger a free hand to begin recruiting personnel and developing the existing surgical specialties. One of the first faculty members recruited by Dr. Zollinger was Dr. Edwin Ellison, who had finished his surgical training in 1946. Dr. Ellison went on to become a major influence in the development of the academic department. The training program in general surgery was established as a five-year program, in keeping with the Halstead concept. In 1948, in response to the need for more extensive medical facilities, construction of a new University Hospital building began. The first patient was admitted in 1951. In 1976 a new complex was constructed and named Rhodes Hall. In 1983 the Board of Trustees renamed the original building Doan Hall.



By 1954 more than 100 patients had radical gastric resection for the control of gastric hypersecretion associated with ulcer resistant to medical therapy. Dr. Zollinger and Dr. Ellison reported on these gastric patients evaluated five years after operation, emphasizing the effects of extensive gastric resection on postoperative nutrition. A syndrome was proposed implicating a pancreatic tumor producing a potent gastric secretagogue. The clinical syndrome continues to be called the Zollinger-Elison syndrome. These tumors are now referred to as gastrinomas.

Dr. Zollinger insisted that the department place emphasis equally on scientific activity and patient care. The department developed and maintained an enviable reputation for clinical excellence. Over the years, the department was awarded numerous grants from the National Institutes of Health and other extramural granting agencies. In 1974, after 28 years in the department, Dr. Zollinger retired. Dr. Luther Keith was named Acting Head of the Department until Larry C. Carey, M.D. was appointed the Zollinger Professor and Chairman of the Department. Dr. Carey was a graduate of The Ohio State University College of Medicine and had taken a straight surgical internship at the Cornell Hospital in New York City and a surgical residency under Dr. Ellison.

1914 - 2014

Dr. Carey decided to step down as department Chair in 1985 and Dr. Olga Jonasson became the Zollinger Professor and Chair of Surgery in 1987. Dr. Jonasson had a national and international reputation for work in the field of organ transplantation and in general surgery, and chaired the President's Task Force on Organ Transplantation in 1986.

Dr. Zollinger remained active as professor emeritus of surgery until his death in 1992. After his retirement as an active surgeon he wrote a history of the Department, excerpts of which are presented above.

Dr. E. Christopher Ellison was named the Zollinger Professor and Chair of Surgery in 1999. The son of Dr. Edwin Ellison, he trained under Dr. Carey and worked with Dr. Zollinger, providing continuum to the tradition of excellence. In April 2013 Dr. Ellison stepped-down as chair to focus his efforts as CEO of the Faculty Group Practice. Dr. Robert S. D. Higgins was appointed department chair.

Leadership

Robert S.D. Higgins, MD, MSHA, was named chair of the Department of Surgery in The Ohio State University College of Medicine effective April 1, 2013, succeeding Dr. E. Christopher Ellison. Dr. Higgins joined Ohio State in July 2010 as director of the Comprehensive Transplant Center and chief of the Division of Cardiac Surgery. He holds the John H. and Mildred C. Lumley Chair in Medicine. He remains in his transplant leadership roles.

"I am honored to follow in the footsteps of such distinguished leadership in the OSU Department of Surgery. Dr Ellison and his colleagues have helped to create a wonderful department known for its outstanding clinical programs and educational offerings and for the strength of its research program," said Dr. Higgins. It's a privilege to be appointed and I look forward to continuing to lead this department to be among the 'best in class' as a leading academic department of surgery in the United States."

Prior to joining the faculty at Ohio State, Dr. Higgins was the Mary and John Bent Professor and Chair of the Department of Cardiovascular-Thoracic Surgery at Rush University Medical Center in Chicago. He served as chair of cardiothoracic surgery at the Medical College of Virginia from 1999 to 2003. Prior to that, he founded and led a successful lung transplant program at Henry Ford Hospital in Detroit, where he also served as director of pediatric cardiac transplantation at the Children's Hospital of Michigan.

Dr. Higgins earned his medical degree at Yale University School of Medicine. He completed his residency in general surgery at Hospitals of the University Health Center in Pittsburgh, where he served as chief resident. He completed fellowship training at Yale University School of Medicine, where he was a Winchester Scholar and fellow in cardiothoracic surgery. Dr. Higgins also earned a master of science in health administration degree from Virginia Commonwealth University. From 1989 to 2004, he served as a major in the United States Army Reserve Medical Corps.

His many national leadership appointments include serving as president of the United Network for Organ Sharing, president of the Society of Black Academic Surgeons, a member of the Thoracic Committee of the American Society of Transplant Surgeons, and a member of the Public Policy Committee of the American Society of Transplant Surgeons. His clinical interests include transplantation and mechanical circulatory support, minimally invasive cardiac surgery, and outcome assessment for heart failure and cardiac surgery patients. He has an extensive list of publications in his field, and has presented widely both nationally and internationally.



Dr. Christopher Ellison

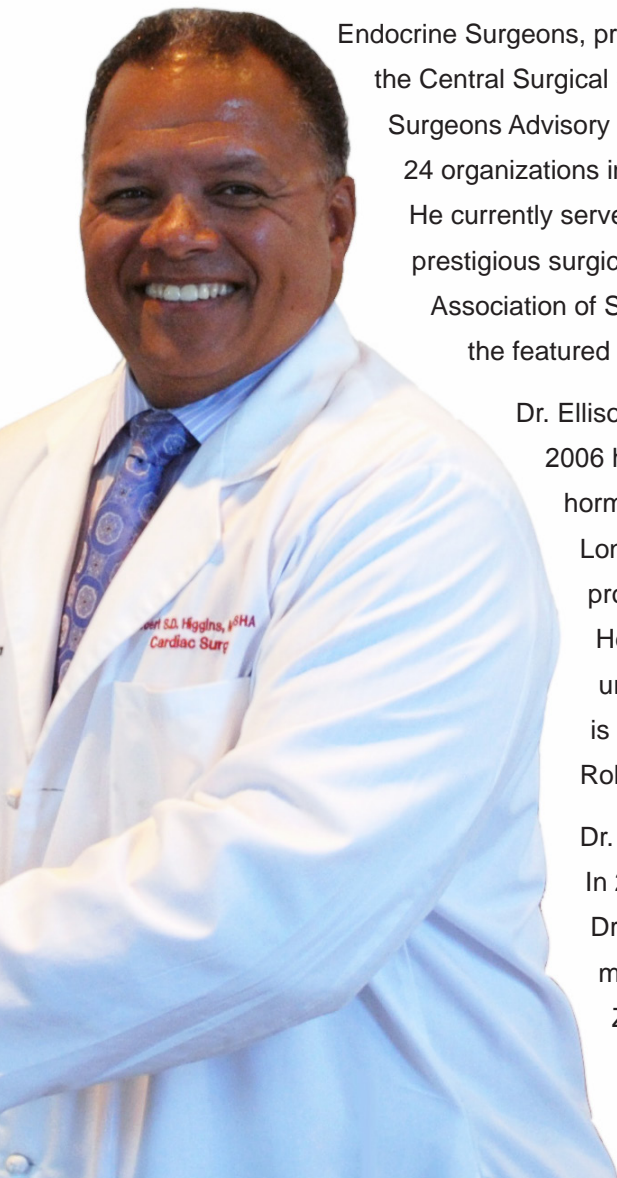
E. Christopher Ellison, MD stepped down as chairman of the Department of Surgery, an appointment he has held since 2000. He will continue as a faculty member of the Division of General and Gastrointestinal Surgery.

Dr. Ellison earned his medical degree in 1976 from the Medical College of Wisconsin. He completed a general surgical residency at Ohio State from 1976 to 1983, and a gastroenterology research fellowship from 1978-1980. As a resident he trained under Dr. Larry Carey and worked extensively with Dr. Robert Zollinger, Sr. Dr. Ellison was appointed as chair of the department in 1999. He currently serves as the Robert M. Zollinger Endowed Chair and College of Medicine Distinguished Professor in the Department of Surgery, as senior associate vice president for Health Sciences at Ohio State's Wexner Medical Center, and vice dean for Clinical Affairs in the College of Medicine. In 2011 Dr. Ellison was appointed CEO of the newly established Faculty Group Practice, leading the integration of all OSU physicians into the organization. Dr. Ellison decided not to seek reappointment as chair upon that appointment in order to avoid conflict of interests in this leadership role. In his current role he serves as one of the top five physicians in the medical center and is engaged with critical executive leadership.

His national and regional service has consisted of multiple roles. He was the qualifying examination chairman and then chair of the American Board of Surgery. He has served as vice-president of the American Association of Endocrine Surgeons, president of the Ohio Chapter of the American College of Surgeons, and the Central Surgical Society. Dr. Ellison currently serves as chair of the American College of Surgeons Advisory Council for General Surgery. He has been an active member of at least 24 organizations in his specialty, and numerous committees at Ohio State and elsewhere. He currently serves as secretary of the American Surgical Association, the oldest and most prestigious surgical association in the United States, and as treasurer of the James IV Association of Surgeons. He has been the invited lecturer for various medical groups, and the featured named lecturer at medical centers both national and international.

Dr. Ellison's research continues to clarify the optimal management of gastrinoma. In 2006 he presented a fifty year follow-up on 106 patients with a potentially malignant hormone-secreting tumor no longer considered to be limited to the pancreas. Long term follow up led Ellison suggest that therapy with H2 antagonists and proton pump inhibitors might temporarily obscure the presence of the tumors. He has written to suggest consideration of early resection for a cure, and to urge development of a nationwide standard staging for these malignancies. He is co-author of the 9th edition of *Zollinger's Atlas of Surgical Operations* with Dr. Robert M. Zollinger, Jr.

Dr. Ellison's interests have evolved into surgical education and workforce issues. In 2008 Ellison published *The Coming Shortage of Surgeons*, co-authored with Dr. Thomas Williams and Dr. Bhagwan Satiani, to highlight the probability of a marked shortage of general surgeons in the years that lie ahead. He and Dr. Zollinger, Jr., are currently working on the 10th edition of *Zollinger's Atlas*.



Dr. Robert Higgins

Overview

Mission Statement

The missions of the Department of Surgery are consistent with those of The Ohio State University College of Medicine. They are the delivery of high-quality and safe patient care, the contribution to innovations in medicine through basic and translational research and clinical outcomes studies, and the education of medical students and postgraduate trainees. This report summarizes the changes and accomplishments in the department from July 1, 2012 through June 30, 2013.

Organization

The Department of Surgery is comprised of nine specialty divisions: Cardiac Surgery; Colon and Rectal Surgery; General and Gastrointestinal Surgery; Pediatric Surgery; Surgical Oncology; Thoracic Surgery; Transplantation; Trauma, Critical Care and Burn; and Vascular Diseases and Surgery. In addition, the Center for Minimally Invasive Surgery, a multidisciplinary organization within the department, is dedicated to developing and implementing minimally invasive technologies and procedures.

91

Full-Time
Faculty

66

Residents
and Fellows

6

ACGME-Accredited
Surgical Residencies

7

Approved Specialty
Fellowships



50,592

OR Procedures

59,513

Outpatient
Visits

8,262

Admissions

58,556

Patient Days

6.88

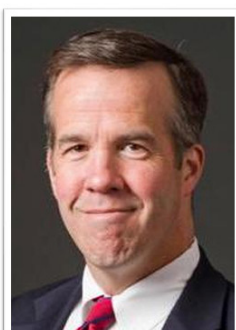
Average Length of
Stay (days)

New Faculty

Recent recruitment efforts brought many new faculty members to the department. In addition to those listed below ongoing recruitment continues to attract exceptional specialists to the department.



**Sylvester
BLACK, MD, PHD**
Transplantation



**Christopher
BREUER, MD**
Pediatric Surgery



David EVANS, MD
Trauma, Critical Care
and Burn



**John Harrison
HOWARD, MD**
Surgical Oncology



**Zhiwei
HU, MD, PHD**
Surgical Oncology



**Christian
JONES, MD**
Trauma, Critical Care
and Burn



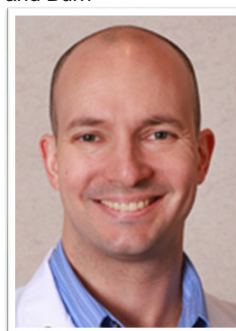
**Pei-Hui
LIN, PHD**
Cardiac Surgery



**Jianjie
MA, PHD**
Cardiac Surgery



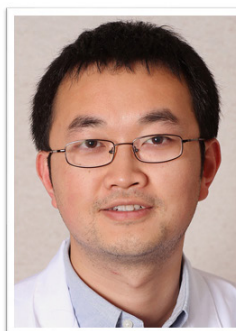
**Toshiharu
SHINOKA, MD, PHD**
Cardiac Surgery



**Benjamin
SIGMOND, MD**
General/GI Surgery



**Bryan
WHITSON, MD, PHD**
Cardiac Surgery



**Hua
ZHU, PHD**
Cardiac Surgery

Clinical Care

The Department of Surgery provides all aspects of major surgical care. This year, the department performed 50,592 surgical procedures and received 59,513 outpatient visits. Outpatient services are available at numerous sites, including:

- The Arthur G. James Cancer Hospital and Richard J. Solove Research Institute, 300 West 10th Avenue
- General and Vascular Surgery at Knightsbridge Surgical Center, 4830 Knightsbridge Boulevard
- The Martha Morehouse Medical Plaza, 2050 Kenny Road
- Nationwide Children's Hospital, 700 Children's Drive
- The Ohio State University Comprehensive Transplant Center, 770 Kinnear Road
- The Ohio State University Wexner Medical Center, 450 West 10th Avenue
- The Richard M. Ross Heart Hospital, 452 West 10th Avenue
- Stefanie Spielman Comprehensive Breast Center, 1145 Olentangy River Road
- University Hospital East, 1492 East Broad Street

In addition we have outreach programs in vascular surgery in Ashland, Bellefontaine, London, Marysville, Upper Sandusky, and Washington Court House, Ohio.



James Cancer Hospital

OSU Hospital East



Ross Heart Hospital

Nationwide Children's Hospital



Patient Safety

Dr. Susan Moffatt-Bruce, associate professor of surgery, is chief patient safety officer for the Wexner Medical Center. The following initiatives have been implemented by her office to improve patient safety at Ohio State:

Surgical Care Improvement Project: OSU Wexner Medical Center continues to demonstrate a consistently high level of performance relative to the Centers for Medicare and Medicaid Surgical Care Improvement Project (SCIP) publicly reported measures. As of the first quarter of 2013 the overall composite was 95.4 percent with 100 percent compliance being achieved for four of the nine measures reported. For more information visit the CMS Hospital Compare website at www.medicare.gov/hospitalcompare.



Dr. Susan Moffatt-Bruce

Infection Prevention: Preventing hospital-associated infections, and specifically surgical site infections (SSI), has been an on-going effort across the health system. Efforts to reduce infections have included: increasing the use of CHG bathing, improving hand hygiene compliance, reducing traffic in and out of operating and procedural suites, improving environmental cleaning strategies, antibiotic timing and appropriateness, and ensuring compliance with aseptic technique practices have all contributed to decreased SSIs in some service lines. Standardizing these processes across all service lines will continue to be the priority during 2014.

Crew Resource Management (CRM): The primary goal of Crew Resource Management is to create system-wide improvement in communication and teamwork. Over 1200 perioperative physicians and staff completed mandatory training, with regularly scheduled refresher training provided. Perioperative Services continues to hardwire CRM tools and principles into their daily work flow. Team use of the OSU Surgical Safety Checklist, hand-off communication tools and daily huddles, help to provide a shared mental model for personalized patient care. Standardization of processes promotes safe practice for improved outcomes. The Critical Care areas look forward to receiving CRM training in calendar year 2014.



Research

Research efforts continue to focus on three major areas: wound healing, vascular biology and transplantation, and tumor biology.

We are seeing the emergence of regenerative medicine as a new discipline in healthcare. With aging and disease, tissues and organs fail. Regenerative medicine is the process of creating living, functional tissues to repair or replace this lost function. It includes the injection of stem cells or progenitor cells (also known as cell-based therapies) and the induction of regeneration by biologically active molecules, and transplantation of in vitro grown organs and tissues. The field of regenerative medicine includes tissue engineering.

The Center for Regenerative Medicine and Cell-Based Therapies (CRMCBT), a multi-disciplinary, multi-college research center, was initiated in 2011 by Dr. Chandan Sen, professor and vice-chair of surgical research, and officially launched by Dr. Steven Gabbe, CEO, Wexner Medical Center, on March 23, 2012. The Center's mission is identifying and partnering faculty and industry with interest and passion towards advancing regenerative medicine within its four pillars – tissue engineering; cell based therapies; imaging; and wound, burn care, and trauma.

The CRMCBT originated in the College of Medicine and focuses collaboration between eight different colleges across the University's campus who are aimed at advancing research and outcomes in the field of regenerative medicine. Currently over 210 faculty and students have membership in the CRMCBT. The collective CRMCBT faculty is involved in and represents the fields of Medicine, Engineering, Arts and Sciences, Dentistry, Veterinary Medicine, Pharmacy and Nursing. The Fisher College of Business, Nationwide Children's Hospital and the Battelle Memorial Institute are also engaged with the Center. Dr. Chandan Sen is the Director and Brent Toto is the Administrative Director.

41

Principle
Investigations

216

Publications



New Research Funding

During fiscal year 2012–2013, research funding awarded through The Ohio State University Research Foundation and Nationwide Children's Research Institute to principal investigators in the Department of Surgery totaled more than \$7.3 million.

Federal funding was more than \$5.19 million, or 70 percent of total funding. Funding from industry was more than \$1.36 million, or 19 percent of the total. Non-federal funding was more than \$750,000, or 11 percent of the total.

Department Funding

\$5.19+ million

Federal Funding

\$1.36+ million

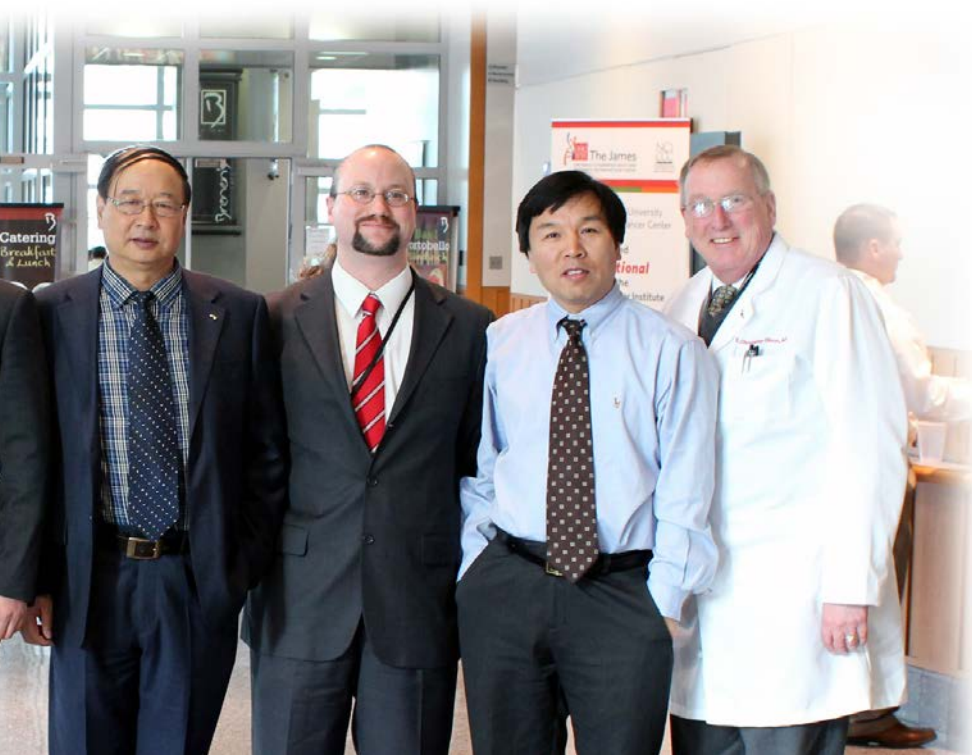
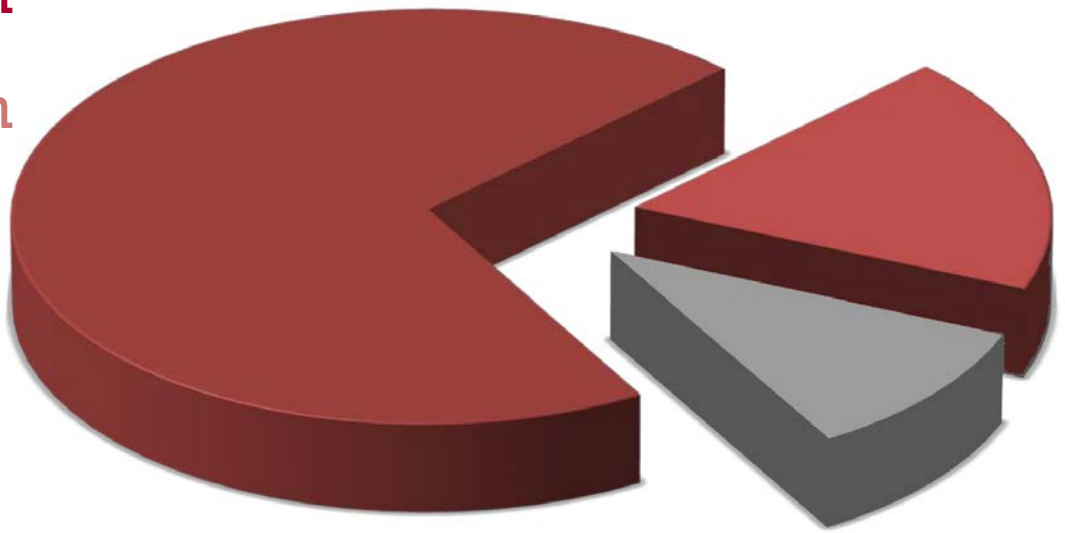
Industry Funding

\$750,000+

Other Non-Federal Funding

\$7.3+ million

Total Funding



Cancer: immunology and gene-nutrient interactions

Cardiovascular: heart failure, myocardial infarction, stroke, atherosclerosis, antioxidant nutrition, and mitochondrial dysfunction

Critical Care: cytomegalovirus infection and sepsis

Transplantation: immune basis of organ allograft rejection, novel immunosuppressive agents

Regenerative Medicine and Wound Healing: fundamental mechanisms, underlying dermal wound healing, and the role of stem cells in repair

Twenty-two residents and fellows completed their training programs in 2012-2013. Five went on to community practice, eleven to further training and six to academic appointments. Over two hundred medical students from the College of Medicine perform clinical rotations on our surgical services. We re-engineered our honors program in surgery, making it practical and up-to-date for our students entering careers in surgery. Sixteen students completed the surgical honors program. Twenty-one students entered surgical training in this academic year.

Graduate Programs in Surgery

The surgical residency programs at The Ohio State University College of Medicine share a common goal: to provide an environment conducive to learning in which physicians prepare to function as well-qualified, independent specialists in surgery.

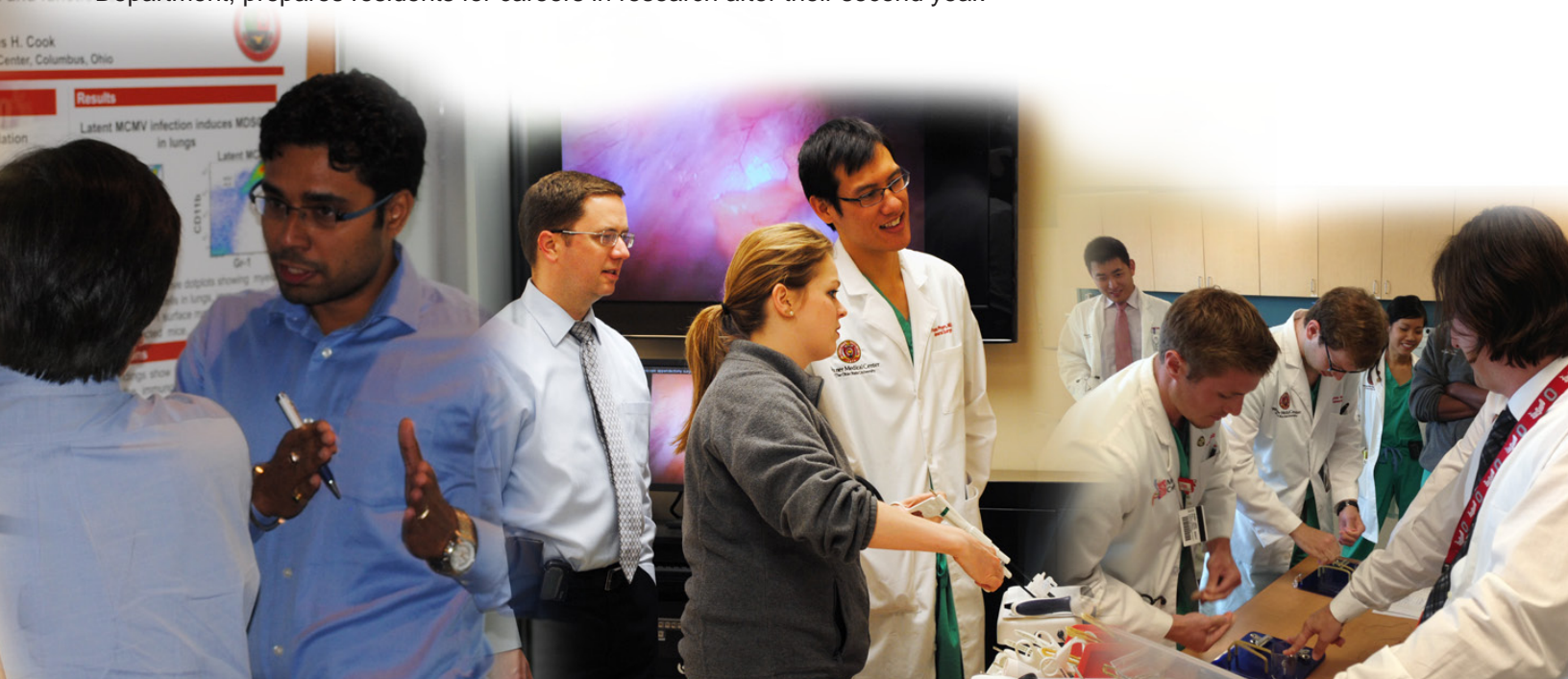
This year, 66 residents and fellows participated in the Department's 13 residency programs, which consist of six residencies accredited by the Accreditation Council for Graduate Medical Education (ACGME) and seven approved specialty fellowships. These programs provide training in acute care surgery, cardiothoracic surgery, general surgery, minimally invasive surgery, advanced endoscopic surgery, pediatric surgery, surgical critical care, surgical oncology, transplantation, and vascular surgery.

Surgical residents at Ohio State are dedicated to learning and teaching advanced surgical techniques and procedures, and assume a major responsibility for the clinical education of medical students. The integrated and affiliated institutions of the program provide clinical resources for graduate and undergraduate surgical education. The Ohio State University Wexner Medical Center and the Department of Surgery host a variety of forums and seminars where clinicians and researchers share their expertise and advance the profession.





Research is a vital component of the Department of Surgery's mission and an integral element of its training programs. Research efforts are focused on key areas of interest that promise to yield significant results in the understanding of disease and in the improvement of clinical care. The Department of Surgery's Office of Surgical Research promotes interdisciplinary research activity and the integration of clinical and basic science research. The Department's stature and the reputation of its researchers and clinicians enable it to garner significant funding from private industry and from federal sources, such as the National Institutes of Health. The Master of Medical Science Program, administered by the Department, prepares residents for careers in research after their second year.



Cardiac Surgery



Robert Higgins, MD, MSHA

The Division of Cardiac Surgery continues to develop initiatives and efforts to enhance its core missions of excellence in patient care, innovative research and training the future generations of cardiothoracic surgeons. The division's comprehensive programs include therapies for end-stage heart and lung failure with mechanical circulatory support, heart transplantation, and the re-initiation of the lung transplantation program. Under the direction of Dr. Robert Higgins, key recruitment has brought additional expertise. Dr. Bryan Whitson joins the faculty with interests in ex-vivo organ perfusion, mechanical circulatory support, ECMO and he will play a principle role in the reinstitution of our lung transplantation. Dr. Jianjie Ma, PhD, professor and the Karl P. Klassen Chair of Thoracic Surgery, is a NIH funded researcher and leads the research efforts in cardiothoracic biomedical sciences programs as a Davis Heart and Lung Research Institute investigator. Dr. Ma investigates novel regenerative medicine therapies for heart failure patients with the Center for Regenerative Medicine and Cell-Based Therapies.

Drs. Juan Crestanello, Chittoor Sai-Sudhakar and Ahmet Kilic have specific interest in aortic diseases, percutaneous aortic valves and complex adult cardiac surgery. Drs. Sai-Sudhakar, Kilic and Higgins have been instrumental in building the mechanical circulatory support and heart transplantation programs with renewed focus and commitment to the care of patients with advanced complex heart failure. Dr. John Sirak continues to build a national referral practice for the treatment of arrhythmias using his innovative thoracoscopic maze procedure. Dr. Sirak was selected to join the Society of Thoracic Surgeons Task Force on Surgical Ablation of Atrial Fibrillation.

The division has once again partnered with the Division of Thoracic Surgery to provide comprehensive training for residents. Our goal is to train the next generation of surgeons to be capable, competent and highly successful professionals in the field of thoracic surgery whether in community practice or an academic environment. Drs. Mark Galantowicz and Patrick McConnell provide an outstanding experience in the field of congenital and structural heart disease at Nationwide Children's Hospital as part of our program. Dr. Ahmet Kilic was nominated for the 2013 Dwight C. McGoon Award, a national award given by the Thoracic Surgery Residents Association. This award recognizes a distinguished young faculty member in cardiothoracic surgery with an outstanding commitment to resident education and mentorship.



Our Mission

The Division of Cardiac Surgery is dedicated to preserving and improving life for patients with heart and valve disease.

Research

Key investigations include: "CTSN-Moderate MR Study- Surgical Interventions for Moderate Ischemic Mitral Regurgitation." Principal investigator Chittoor Sai-Sudhakar, MD; "AHA Hybrid Revascularization Study - Hybrid Revascularization: A Collaborative Approach to Coronary Artery Disease." Principal investigator Juan Crestanello, MD; "AlloCure Stem Cell Trial- A Randomized, Multicenter, Double-Blind, Placebo-Controlled Study of AC607 for the Treatment of Acute Kidney Injury in Cardiac Surgery Subjects." Principal investigator Ahmet Kilic, MD; "CoreValve Clinical Trial – Medtronic CoreValve® U.S. Pivotal Trial." and "CoreValve Continued Access Trial – Medtronic CoreValve® Continued Access Study." Principal investigator Juan Crestanello, MD; and "Cormatrix Study – Prospective, Randomized Evaluation of New Onset Postoperative Atrial Fibrillation in Subjects Receiving the CORMATRIX® ECM™ for Pericardial Closure." Principal investigator John Sirak, MD.

Clinical Programs

- Adult cardiothoracic surgery
- Aortic surgery
- Arrhythmia surgery
- Heart failure surgery
- Heart transplantation
- Lung transplantation
- Mechanical circulatory support
- Minimally invasive heart surgery
- Robotic surgery
- Total artificial heart transplantation

Educational Programs

- Two-year cardiothoracic surgery fellowship accredited by Accreditation Council for Graduate Medical Education.
- One-year fellowship in Advanced Heart Failure/Transplantation/Mechanical Circulatory Support
- Comprehensive rotation in cardiothoracic surgery for first- and third-year residents in general surgery
- 8 week Summer Scholars program exposing 1st year medical students to the field of cardiothoracic surgery

2,279
OR Procedures

2,224
Outpatient
Visits

950
Admissions

12,386
Patient Days

10.95
Average Length of
Stay (days)

Only adult heart transplant program in central Ohio

National leader for implanting
ventricular assist devices

Ohio State's Richard M. Ross
Heart Hospital is ranked 36th out
of nearly 5,000 hospitals around
the country in the 2013 survey by
U.S. News & World Report.



Colon and Rectal Surgery



Mark Arnold, MD

The Division of Colon and Rectal Surgery was formed in July 2012 to meet specialized patient care and educational needs. Led by Dr. Mark Arnold, this newly created division consists of faculty members who were previously a part of the Division of General and Gastrointestinal Surgery. Our faculty are devoted to the treatment of benign and malignant colon and rectal disease, setting standards of patient care that are delivered consistently, streamlining the care for our patients. Specializing in minimally invasive surgical management, Dr. William Cirroco joined our faculty in September 2013. All faculty members in the division are board certified by both the American Board of Surgery and the American Board of Colon and Rectal Surgery, and each has completed a Fellowship in Colon and Rectal Surgery. Providing specialized care to our patients, as well as teaching the next generation of surgeons the care and treatment of colorectal diseases, is a top priority of the division.

Multi-disciplinary Care



Our Mission

The Division of Colon and Rectal Surgery is dedicated to the achievement of excellence in patient care, medical education and clinical training, and clinical research.

Research Programs

- Minimally invasive surgical techniques

Accomplishments in Research

- Faculty members in the division published 6 scholarly articles, abstracts, and chapters and gave 11 presentations at national meetings.

Clinical Programs

- Treatment of benign and malignant diseases of the colon and rectum
- Colon and rectal cancer
- Inflammatory bowel disease
- Crohn's disease
- Diverticulitis
- Pilot study of Saturday endoscopy and colonoscopy appointments to increase patient assess

Patient Focused

3,605

OR Procedures

2,959

Outpatient
Visits

641

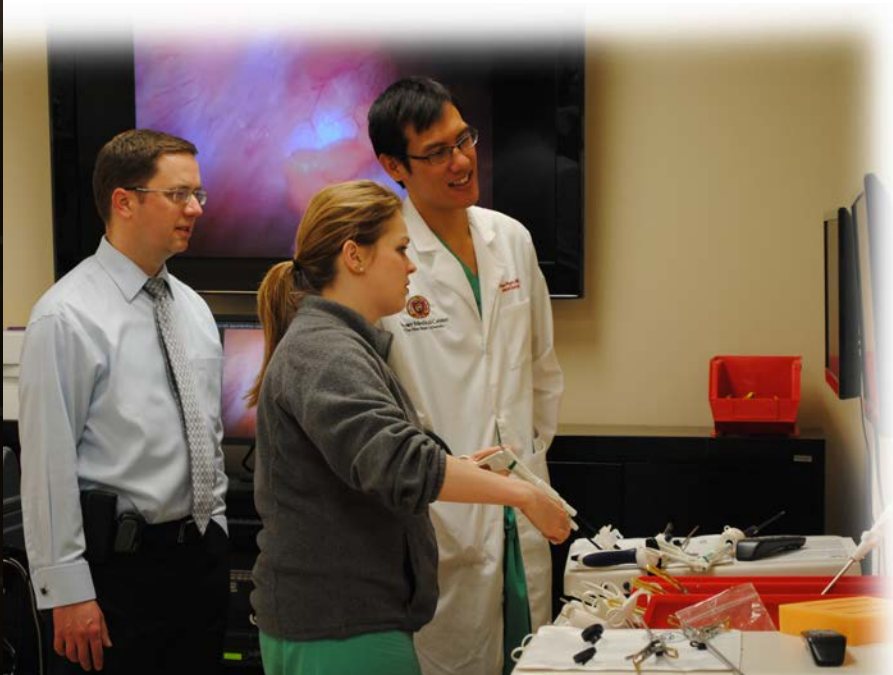
Admissions

4,975

Patient Days

7.27

Average Length of
Stay (days)



Educational Programs

- Colon and Rectal Surgery Fellowship Rotation

Leadership in Education

- Dr. Mark Arnold is Vice Chair for Surgical Education and Program Director for the General Surgery Training Program
- Dr. Alan Harzman is the Medical Student Clerkship Director for the Department of Surgery. He has Faculty Teaching Award presented by the general surgery residents and has twice received the Michael J. Walker, MD Faculty Teaching Award presented by the medical students.

General and Gastrointestinal Surgery

The Division of General and Gastrointestinal Surgery is committed to excellence in education, training, research and clinical care in general and foregut surgery. We strive to offer the newest and most cutting edge treatments. Our surgeons are leaders in their respective fields and we continue to recruit the best and brightest talent to expand our Division's ability to offer the best to our patients. We make contributions to surgery in the fields of gastroesophageal reflux disease, endoluminal and minimally invasive surgery, bariatric surgery, surgical endoscopy, and the treatment of malignant disease of the gastrointestinal tract. Surgical education and the training of medical students, residents, fellows and physicians in practice is an integral piece of our Division's academic endeavors. Our clinical teams are recognized by excellence in quality metrics and patient satisfaction. The Bariatric Surgery Program holds Center of Excellence status, four of our surgeons are recognized as Best Doctors in America and we serve as the treatment and referral center for gastrointestinal surgical disease in the region.



Drs. Dean Mikami, Jeffrey Hazey and Bradley Needleman

Research Programs

- Wound angiogenesis and healing
- Cardiac remodeling
- Vitamin E and neurodegeneration
- Clinical wound healing
- Cytomegalovirus infections and bacterial sepsis
- Gene therapy and the effects of early genetic changes in pancreatic cancer
- Minimally invasive surgical techniques
- Regenerative medicine

Educational Programs

- Fully-accredited residency in general surgery
- One-year clinical assistant professorships in minimally invasive surgery and advanced therapeutic endoscopy
- Honors program in surgery for fourth-year medical students
- Four-week subinternship in general surgery
- Six-week clerkship in general surgery
- Master of medical science program

Clinical Programs

- Comprehensive gastrointestinal surgery services
- Minimally invasive surgery
- Bariatric surgery
- Benign and malignant esophageal disorders
- Gastroesophageal reflux
- Hepatobiliary and pancreatic cancer
- Wound care



12,662

OR Procedures

15,854

Outpatient
Visits

1,728

Admissions

10,163

Patient Days

5.86

Average Length of
Stay (days)

Our Mission

The Division of General and Gastrointestinal Surgery is dedicated to the achievement of excellence in patient care, medical education and clinical training, and basic science and clinical research.

Innovation

Accomplishments in Research

- Faculty members in the division published 39 scholarly articles, abstracts, and chapters
- NIH RO1 on stroke research titled “iGOT Neuroprotection” awarded to Savita Khanna, PhD and Cameron Rink, PhD with an anticipated funding level of \$1.9M over 5 years
- NIH RO1 for the investigation “Mechanisms underlying impaired diabetic wound healing” awarded to principal investigator Sashwati Roy, PhD. \$1.2M over 5 years
- NIH RO1 for the investigation “microRNA Control of Wound Healing” awarded to principal investigator Chandan Sen, PhD. Total award \$2.2M
- Society of American Gastrointestinal and Endoscopic Surgeons (SAGES) foundation grant to Mark Wendling, MD
- Multi-Center study investigating TIF vs. PPI therapy for GERD, principal investigator Kyle Perry, MD

Accomplishments in Education

- Completion of the general surgery residency by Dr. Catherine Beck, Dr. Iyore James, Dr. Michelle Kincaid, Dr. Maureen Pons Kuhrt and Dr. Geoffrey Roelant.
- Completion of the fellowship in minimally invasive surgery by Dr. Luke Funk and Dr. Aliyah Kanji.
- Completion of the fellowship in advanced therapeutic endoscopic surgery by Dr. Mario Salazar
- Faculty have trained over 250 surgeons, residents, students and allied healthcare professionals from throughout the United States and international community in educational programs offered through the Center for Minimally Invasive Surgery.

Over
250
Surgical Trainees

Best Doctors in America



Pediatric Surgery

The Division of Pediatric Surgery conducts its clinical, educational, research, and academic programs at Nationwide Children's Hospital (NCH), which opened its doors to its new 12-story, 750,000-square foot facility in 2012. Nationwide Children's Hospital is one of the largest children's hospital in the country, with an impressive total of 552 beds, and close to 1 million patient visits each year. It is consistently ranked in all 10 specialties of the *U.S. News & World Report* listing of the best Children's Hospitals in the United States, and ranks among the Top 10 pediatric research institutes in the country as measured by National institutes of Health funding, with three dedicated research buildings. The pediatric surgery service is one of the busiest services of its kind across the United States. Nationwide Children's Hospital is one of the only hospitals in the United States that is an American College of Surgeons-designated Level I pediatric trauma center, an American Burn Association verified pediatric burn center, and a Commission on Accreditation of Rehabilitation Facilities (CARF) approved pediatric rehabilitation center.



Gail E. Besner, MD

Led by Dr. Gail Besner, the faculty members in the division include 13 board-certified pediatric surgeons (six of whom are also certified in surgical critical care), one hospitalist (who is board-certified in general surgery specializing in burn and trauma care), and a full-time Ph.D. scientist. In addition to providing general pediatric surgical care, the division provides world-leading expertise in multiple focused areas of excellence including pediatric burn care, trauma care, minimally invasive surgery, inflammatory bowel diseases, adolescent bariatric surgery, gastrointestinal motility disorders, chest wall deformities, surgical oncology, and surgical endocrinology.

World-class care

Research

- Dr. Gail Besner's lab is currently in its 21st year of continuous funding from the NIH to support her basic science research on heparin-binding EGF-like growth factor (HB-EGF).
- Dr. Christopher Breuer's lab is currently in its 7th year of continuous funding from the NIH to support his basic science research investigating the mechanisms of vascular neotissue formation in tissue engineered vascular grafts. He is the Principal Investigator on the first FDA-approved clinical trial investigating the use of tissue engineered vascular grafts in humans for which he receives industrial support from the Pall Corporation and Gunze Limited.
- Dr. Brigstock studies the role of connective tissue growth factor (CTGF) in organ fibrosis with emphasis on the liver and pancreas; his laboratory is currently supported by two NIH R01 grants.
- Drs. Katherine Deans and Peter Minneci continue to develop the Center for Surgical Outcomes Research at Nationwide Children's Hospital. They have obtained new grant funding to support their work from several national agencies including the Patient Centered Outcomes Research Institute (PCORI) and the Agency for Healthcare Research and Quality.



Our Mission

The Division of Pediatric Surgery, in alignment with Nationwide Children's Hospital, believes that no child should be refused necessary care and attention for lack of ability to pay. We are committed to fulfilling the CARES mission by providing the highest quality: Patient Care; Advocacy for children and families; Pediatric Research; Education of patients, families and future providers; and Outstanding Service to accommodate the needs of patients and families. Our vision is to create optimal health for every child in our community.

Clinical Care

- Introduction of robotic surgery to the surgical management of children
- Outpatient care for children with thermal injuries
- Bariatric surgery program for the treatment of morbidly obese adolescents
- Advanced minimally invasive procedures for thoroscopic and laparoscopic management of congenital and acquired lung and intestinal disorders
- Development of a multi-disciplinary surgical oncology clinic
- Pediatric surgical clinical and operative services to Westerville, Ohio and clinical services to Mansfield, Ohio

Educational Programs

- ACGME fully accredited two-year residency in pediatric surgery
- Examinations in Pediatric Surgery, as given by the American Board of Surgery
- ACGME fully accredited fellowship in pediatric surgical critical care
- Clinical fellowships in trauma and clinical research for senior level residents in general surgery
- Basic science research fellowships in Pediatric Surgical Research for residents in general surgery
- Clinical research fellowships in clinical and outcomes research for general surgery residents in accredited programs
- Pediatric minimally invasive surgery fellowship for residents in accredited programs in general surgery
- Comprehensive pediatric surgery rotations in the care of infants, children, and adolescents with surgical disease
- Pediatric surgery rotations for interns in the combined Nationwide Children's Hospital-Doctor's Hospital pediatrics residency and for fellows in the pediatric critical care medicine fellowship at Children's Hospital
- Clinical clerkship and subinternships in pediatric surgery

Specialized

4,135

OR Procedures

8,854

Outpatient
Visits

2,012

Admissions

9,190

Patient Days

4.57

Average Length of
Stay (days)



Surgical Oncology

The Division of Surgical Oncology is devoted to clinical and basic research activities for the evaluation and management of cancer. Our goals are to provide excellence in clinical cancer care, to educate medical students, residents, and fellows, and to conduct clinical and basic research. Most of the research performed in the division is translational, in which ideas and hypotheses from the laboratory are incorporated into clinical evaluation through the clinical trial mechanism.

Dr. William Farrar, the Arthur G. James Professor of Surgery, has stepped-down as division chief. He will continue as the director of the Stephanie Spielman Comprehensive Breast Center. We are very pleased to announce his successor, internationally renowned specialist Dr. Raphael Pollock. New faculty members also include Dr. Harrison Howard and Dr. Zhiwei Hu.



Raphael E. Pollock, MD

Research

- Dr. Raphael Pollock is principal investigator of an \$11.5 million National Cancer Institute Specialized Programs of Research Excellence (SPORE) grant, awarded to the Sarcoma Alliance for Research for Collaboration last fall. This represents the largest award ever to study sarcoma and will now be located at OSUCCC-James.
- Dr. William Carson directs a funded laboratory and is principal investigator of several funded investigations within the division's immunology program.
- Dr. Mark Bloomston is principal investigator on at least 5 clinical trials over the past year in the gastrointestinal surgical oncology program
- Dr. Zhiwei Hu was hired on November 2012 to develop a program of targeted therapy for cancer in collaboration with the laboratory of Dr. William Carson with a focus on neovascular targeted immune-conjugates and immune-modulating agents.
- Dr. Stephen Povoski, working with Dr. Edward Martin's research group, investigates cancer detection methods and intraoperative imaging. Results were presented during an international outreach to China.
- Dr. Carl Schmidt has been working with thoracic surgery to develop a program for totally robotic esophagectomy, and serves as principal investigator on several clinical trials.
- Dr. Alicia Terando is principal investigator the clinical trial "Safety and Feasibility of Minimally Invasive Inguinal Lymph Node Dissection in Patients with Melanoma" in a collaboration with the Mayo Clinic.

The Surgical Oncology Peloton raised over \$60,000 during Pelotonia 2013.



Our Mission

The mission of the Division of Surgical Oncology is reflected in the mission of The Arthur G. James Cancer Hospital and Richard J. Solove Research Institute. We are dedicated to the evaluation and management of cancer and to cancer research and education.

Educational Programs

- Two-year fellowship in surgical oncology, which includes 18 months of clinical work and six months of basic research
- Comprehensive rotation in surgical oncology for third- and fourth-year residents in general surgery
- Sub-internship in surgical oncology

Accomplishments in Education

- Surgical Oncology Fellowship Program received Initial ACGME Accreditation effective July 1, 2012.
- Dr. Scott Albert is the first to complete the Surgical Oncology Fellowship Program as an ACGME accredited program.
- Dr. Sherif Abdel-Misih is the assistant clerkship director for the department as well as a dissection instructor in the gross anatomy lab.
- Dr. Doreen Agnese is director of the breast rotation for second-year medical students.

Clinical Programs

- Comprehensive surgical oncology services offering multimodality care – the model for the Wexner Medical Center
- High-risk breast cancer clinic directed by Dr. Lisa Yee
- Multidisciplinary pancreas clinic led by Dr. Mark Bloomston
- Sarcoma program led by Dr. Raphael Pollock
- The thyroid cancer program led by Dr. John Phay is one of the top programs in the U.S.

Collaboration

5,378

OR Procedures

20,882

Outpatient
Visits

789

Admissions

5,097

Patient Days

6.31

Average Length of
Stay (days)



Thoracic Surgery

The Division of Thoracic Surgery continues to build our collaborations within the medical center, nationally and internationally, focused on our clinical programs and promoting research and publications. During the past year we have presented in multiple international forums including Korea, Italy, Japan and England. We have been at the podium at national meetings for American Association for Thoracic Surgeons, the Society of Thoracic Surgeons and the Society of Surgical Oncology. The division is led by Dr. Patrick Ross, Jr.

Our newest clinical program is diaphragmatic pacing. We performed the first implantation of diaphragmatic pacer at Ohio State in spring 2013. Given the strength of clinical care for amyotrophic lateral sclerosis (ALS) at Ohio State, we anticipate that this program will attract a large number of patients.

Our robotics program was initiated in September 2011 and has matured well over the past two years. We have accomplished 260 robotic thoracic procedures. The data for these patients is entered into a registry which will allow us to complete the essential outcomes studies on this technology.

Our multicenter outcomes prospective registry in photodynamic therapy now includes eight universities and cancer centers. Five of these sites have completed the IRB and certification process and are actively accruing patients. We are evaluating expanding to international partners. We look forward to adding further investigator initiated protocols to the institutions participating in this registry. We have developed a new program in photodynamic therapy for pleural based diseases such as mesothelioma.



Patrick Ross, Jr., MD, PhD

Innovation

\$1500 was donated to Thoracic Surgery by a 12 year old young lady in honor of her mother, who was a patient.



Our Mission

The Division of Thoracic Surgery is dedicated to developing and applying multidisciplinary care for malignant and benign diseases of the chest.

Research

- Photodynamic Therapy: Prospective outcomes registry, immunobiology, PDT for malignant pleural disease, management of photosensitivity
- Robotic-Assisted Surgery: Comparative effectiveness studies, multi-center outcomes registry
- Autofluorescence Bronchoscopy: Early detection of airway malignancies
- Transplant Immunology: Mechanisms of bronchiolitis obliterans, macrophages and T cells in cardiac transplant rejection
- Diaphragmatic Pacing: Applications in respiratory failure

Drs. Vincent Daniel, Patrick Ross, Jr. and Edmund Kassiss



Clinical Care

- Adult thoracic surgery
- Diaphragmatic pacing
- Electromagnetic bronchoscopy
- Endobronchial ultrasound
- Lung volume reduction surgery
- Photodynamic therapy
- Robotic surgery epicenter for thoracic surgery
- Thoracic oncology multidisciplinary clinic
- Tracheal reconstruction

2,884
OR Procedures

2,866
Outpatient
Visits

816
Admissions

4,806
Patient Days

5.74
Average Length of
Stay (days)

Education

- Two-year cardiothoracic surgery fellowship accredited by the Accreditation Council for Graduate Medical Education
- Comprehensive rotation in thoracic surgery for first- and third-year residents in general surgery
- Summer Scholars is an eight week program that gives first year medical students exposure to the field of Cardiothoracic Surgery.



Transplantation

The Division of Transplantation combines a busy clinical transplant program with a diverse and productive research effort. Within the Comprehensive Transplant Center (CTC), the division has embarked on a number of collaborative, interdisciplinary endeavors to enhance both the clinical activities and the basic research efforts in transplantation at Ohio State. The CTC's team of specialists pursue areas of common interest in transplantation, including immunopharmacology, immune assessment and monitoring, immune engineering, information systems, biostatistics, clinical trials, public policy and ethical considerations, and communications and public relations.

The division welcomes Dr. Sylvester M. Black, assistant professor of surgery, who in collaboration with Dr. Ahmet Kilic and Dr. Bryan A. Whitson, both with the Division of Cardiac Surgery, is conducting a novel investigation of ex-vivo organ perfusion and preservation. They have formed the Collaboration for Organ Perfusion, Protection, Engineering and Regeneration (COPPER).

Additionally, Dr. Black and division chief Dr. Mitchell L. Henry are investigating markers for assessing liver function.

Dr. Ginny L. Bumgardner's National Institute of Allergy and Infectious Diseases/National Institutes of Health (NIAID/NIH) grant was renewed and she continues to investigate novel mechanisms regulating post-transplant humoral alloimmunity. Dr. Bumgardner also directs resident research training and the Master of Medical Science Program.

The kidney transplant program is one of the busiest in the nation and includes the living-donor program and paired-donor exchange program. The Wexner Medical Center is recognized by *U.S. News & World Report* as a top hospital for kidney disease care. Dr. Amer Rajab directs the islet cell transplantation program providing "cutting-edge" treatment for insulin-dependent diabetics. Dr. Rajab also directs the pediatric transplant program at Nationwide Children's Hospital.

Dr. Elmahdi A. Elkhammas, professor of clinical surgery, continues his activism in the cause of improving healthcare in his native country of Libya. Dr. Elkhammas is the founder and editor-in-chief of the *Ibnosina Journal of Medicine and Biomedical Sciences*, a peer-reviewed journal with the mission to train the next generation in the peer review process, and to provide researchers from developing countries with a venue for mentorship to enhance their manuscripts.



Mitchell Henry, MD



Our Mission

The Division of Transplantation is dedicated to building upon a solid foundation of basic, translational, and clinical research in order to define and develop the next generation of high-quality, comprehensive, cost-effective transplant programs.

Research

- Transplant rejection
- Allograft acceptance and transplant tolerance
- Novel immunologic strategies for islet cells transplantation
- Cellular transplantation
- New immunosuppressive compounds

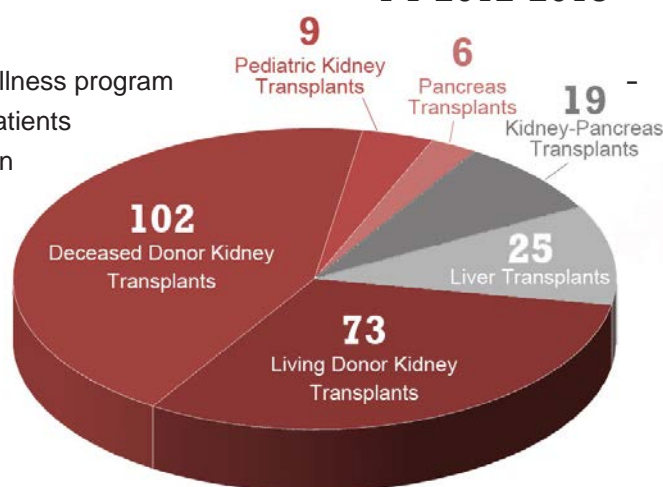
Clinical

- Pre-transplant
- Post-transplant and transplant wellness program currently sees more than 2,000 patients
- Living donor kidney transplantation
- Kidney transplantation
- Islet transplantation
- Liver transplantation
- Pancreas transplantation
- Vascular access
- Recovery of the deceased donor

Educational Programs

- Two-year fellowship in solid organ transplantation accredited by the American Society of Transplant Surgeons
- Rotations for general surgery residents during their intern and PGY-3 year
- Rotation for surgery residents from the Mount Carmel Health System, Riverside Methodist Hospital, and Doctors Hospital. The rotation provides the clinical transplant experience required by the American Board of Surgery.

FY 2012-2013



1,751
OR Procedures

3,018
Outpatient
Visits

4,806
Patient Days

780
Admissions

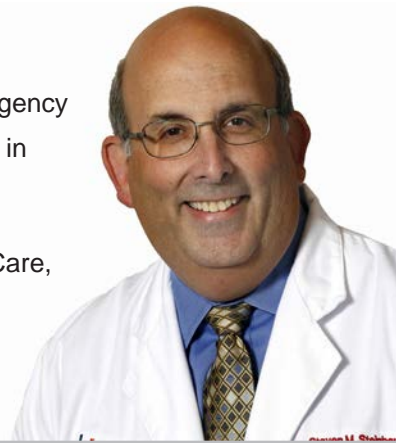
6.17
Average Length of
Stay (days)



Trauma, Critical Care and Burn

The Division of Trauma, Critical Care and Burn was formed in March, 2006 with the charge of enhancing the Department of Surgery's programs in surgical critical care, trauma, burn and emergency general surgery and developing an acute care surgery program. We have seen continued growth in number of faculty and also in clinical volume and scholarly activity.

Steven M. Steinberg, MD, professor of surgery, is the director of the Division of Trauma, Critical Care, and Burn and is a member of the board of the clinical trauma committee of Central Ohio Trauma Systems. Dr. Steinberg is listed as one of the Best Doctors in America by the *U.S. News and World Report*.



Steven M. Steinberg, MD

The division is active in numerous community outreach programs including the Trauma Injury Prevention Program, Burn Outreach Program, Trauma Outreach Program, Local Heroes Day, and the Trauma Go Team. The Trauma Go Team is a collaboration between OSU Wexner Medical Center, Grant Medical Center, and the Columbus Division of Fire to provide an on-site trauma surgeon in the event that a trauma patient cannot be safely extricated from a scene without surgical intervention. The Burn Prevention and Education Outreach Program implemented an 18-month plan to build relationships with local communities, outlying facilities, and EMS providers in our service area by providing education on burn prevention and the initial management of burns. The OSU Burn Center's Family Burn Camp, under the direction of Dr. Sidney Miller, is held annually in August at Camp Joy in Clarksville, Ohio. This camp brings together former burn patients and their families for a weekend of camping and team building. Dr. Larry M. Jones, Burn Center director, made national headlines this past year for his novel collaboration with the OSU College of Veterinary Medicine to save a badly burned horse.

The division recruited new faculty members David C. Evans, MD and Christian D. Jones, MD. Dr. Evans, assistant professor of surgery, is Assistant Trauma Medical Director and has been active in quality improvement and outreach efforts in the trauma center. Dr. Jones is assistant professor of surgery specializing in surgical critical care and burn surgery.



Our Mission

To improve people's lives through innovation in research, education and patient care in the areas of surgical critical care, trauma, burn and emergency surgery.

Research Highlights

- During this academic year faculty members' research has been accepted in 55 publications, with 23 national podium presentations
- Charles Cook, MD is the principal investigator of the NIH RO1 study "Bacterial Sepsis & Reactivation of Latent Cytomegalovirus" with a total award of \$1.2 million
- Stanislaw Stawicki, MD is the principal investigator of "A Multicenter, Double-Blind, Randomized, Phase 3 Study to Compare the Efficacy and Safety of Intravenous CXA-201 with that of Meropenem in Complicated Intraabdominal Infections." Total funding \$353,636
- Stanislaw Stawicki, MD is the principal investigator of "Multi-Center Study of Septrafilm in Trauma Open Abdomens." Genzyme Corporation. Total funding \$368,000

Clinical Care

- The OSU Wexner Medical Center is widely recognized for its expertise in the care of trauma patients and treats patients from throughout Ohio. It has the only emergency department in central Ohio with hyperbaric medicine facilities and on-site physicians in more than 40 medical specialties. OSU Wexner Medical Center has held a Level I designation for 20 years and was one of the first hospitals to receive the designation after the verification program started in 1987. The division assumes the care of the majority of emergency general surgery patients.
- The Burn Program at The OSU Wexner Medical Center provided their first TeleBurn consultation with their partners at Adena Regional Medical Center. TeleBurn is designed for existing patients who live regionally and allows them to receive collaborative treatment locally. The outpatient burn program continues to see growth in new outpatient business.

5,902

OR Procedures

3,236

Outpatient
Visits

1,947

Admissions

13,753

Patient Days

7.16

Average Length of
Stay (days)

Education

- Fully-accredited fellowship in surgical critical care.
- Fellowship in acute care surgery
- The division has an approved fellowship in burns
- Dr. Daniel S. Eiferman, assistant professor of surgery, received an Outstanding Contribution Award from the Department of Emergency Medicine at The Ohio State University Wexner Medical Center for the second year in a row.



Vascular Diseases and Surgery



Patrick Vaccaro, MD

The Division of Vascular Diseases and Surgery continues to provide exemplary care to the citizens of Ohio and the surrounding area. We had more applicants this year for our fellowship position than ever before and continue to provide an extraordinary experience for our trainees. We did experience a reduction in our number of cases performed over the past year but the complexity has remained as high as ever.

Our primary mission is excellence in patient care. Our vascular clinics consistently achieve exceptional patient satisfaction ratings. Knightsbridge Vascular Surgery clinic achieved Quarterly Patient Satisfaction Awards for the third quarter 2012 timeframe with a satisfaction rating of 92.7%, and fourth quarter with a rating of 94.7%. Division of Vascular Diseases & Surgery physician team for Inpatient area received a BRAVO Patient Satisfaction Quarterly Achievement Award for 2013. We are designated a Level One CardioVascular Emergency System and as an Aortic Center of Excellence, with an interdisciplinary team of vascular surgeons, cardiac surgeons, anesthesiologist and cardiologist to care for patients with diseases of the aorta.

We are committed to training the next generation of vascular surgeons. Through our General Vascular Surgery Fellowship Program our faculty have trained 26 vascular surgeons who are currently practicing in the United States and international communities. Division chief Patrick Vaccaro, MD, MBA was recognized by The Ohio State University Wexner Medical Center, College of Medicine and the Department of Surgery for the "Excellence in Teaching Award." Bhagwan Satiani, MD, MBA implemented and leads the Faculty Leadership Institute, a novel business skills training program, in the College of Medicine's Center for Faculty Advancement, Mentoring and Engagement. Jean Starr, MD is an ongoing member of Society of Vascular Surgery Women's Leadership Committee and in the past year received an award for \$5,000 from the Society of Vascular Surgeons as a Women's Leadership Grant.

In research, Dr. Cameron Rink directs a robust lab obtaining a 7% in fundable score for his most recent RO1 submission to the NIH. This should result in a grant of \$1.9 million in direct and indirect funds starting December 2013. Dr. Rink received a first place young scientist award at the 6th Annual Translational to Clinical Regenerative Medicine Wound Care Conference and he continues his research on cerebrovascular collaterals and acute ischemic stroke for which he has an active award from the American Heart Association. During this academic year division faculty members published 57 scholarly articles, books, chapter's abstracts, and posters. Michael Go, MD was awarded the Jack R. Pfeifer Best Venous Paper Award at the 2012 Midwestern Vascular Surgical Society Meeting.



Our Mission

The mission of the Division of Vascular Diseases and Surgery is to deliver the highest quality of care to patients throughout Central Ohio suffering with peripheral vascular disease, contribute to innovations in medicine through translational research and clinical outcomes studies, and educate medical students and postgraduate trainees. A key element of focus is our commitment to leadership in personalized health care.

Clinical Care

- Comprehensive general vascular diseases and surgery service
- Arterial surgery clinic
- Dialysis clinic
- Endovascular surgery
- Laser surgery for varicose veins
- Outreach vascular clinics in Ashland, Bellefontaine, Fayette, Marysville and Upper Sandusky
- Venous surgery clinic
- Varicose vein clinic
- Wound care clinic

2,631

OR Procedures

7,517

Outpatient
Visits

611

Admissions

2,567

Patient Days

4.15

Average Length of
Stay (days)

Education

- Two-year ACGME accredited fellowship in vascular diseases and surgery
- Comprehensive rotation in vascular diseases and surgery for junior and senior general surgery residents
- Sub-internship in vascular diseases and surgery
- Vascular Grand Rounds approved for Category 1 CME clinical and basic science topics discussed (bi-weekly)
- Divisional Morbidity and Mortality Conference, Pre-Operative Case Conference, Journal Club, Endovascular M&M and Angiogram Conference, Interesting Case Conference, Research Update Conference, Vascular Lab Lecture and outside speaker conference (quarterly)





Department of **SURGERY**

Administration 614.293.8631

Division of **Cardiac Surgery** 614.293.7727

Division of **Colon and Rectal Surgery** 614.293.8229

Division of **General and Gastrointestinal Surgery** 614.293.8229

Division of **Pediatric Surgery** 614.722.3911

Division of **Surgical Oncology** 614.293.0968

Division of **Thoracic Surgery** 614.366.7431

Division of **Transplantation** 614.293.4380

Division of **Trauma, Critical Care and Burn** 614.293.9488

Division of **Vascular Diseases and Surgery** 614.293.8536



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